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...GEOGRAPHICAL...

Outline Manual

— OF —

North America.

BY *J. M. RAPP,*

Principal Neola Public Schools,

Neola, Iowa.



PUBLISHED BY THE AUTHOR.

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Geographical Outline Manual

OF

NORTH AMERICA,

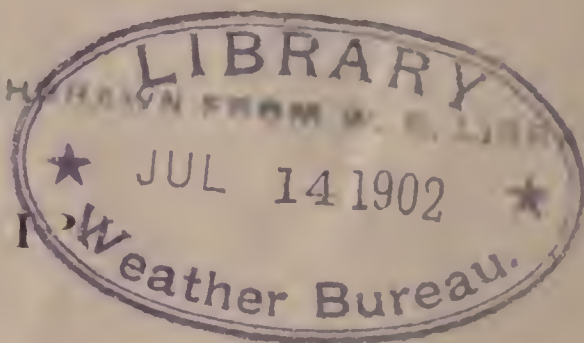
*Considering the Physical Features of the Continent in Regard to the Influence
Upon Some Historic Movements and Industrial Developments.*

Designed for the Use of Students and Teachers,

BY

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J. M. RAFFERTY



Principal of Neola Public Schools,

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PREFACE.

The study of geography is at present in a transition period. The memorizing of isolated geographic facts is giving way to an application of geography to human affairs, especially to history and to industrial and commercial developments. There is a general tendency to trace the physical causes influencing the course of human events, and to determine the forces that bring about certain conditions of climate and of production. While this little work cannot make great pretensions in this line, it was the intention to construct it on the plan indicated.

An outline is not properly an innumeration of facts. It is rather a guide to study. Hence, many parts are left for the student to fill out so that he may exercise his judgment and power of research. Some parts are filled out to indicate better the general plan of work, or to give information not readily obtained without a good supply of reference books.

A few statistics have been added to arouse to investigation; for example, Why is Nevada declining in population? Why have Idaho, Montana and North Dakota a greater increase per cent in population during the last decade than other states? What enables Rhode Island to support a greater population per square mile than any other state in the union? Investigations of this nature are a part of healthful geographical research.

J. M. RAPP.

Neola, Iowa, March 1, 1902.

NORTH AMERICA.

1. Is its location on the globe an advantageous one? That is, does the greater part of it lie so that human beings may develop on it unhampered by excessive heat or cold? Also, is it so situated that intercourse with other continents is easy? By far the greater part lies in the temperate zone, in which man and the animals of the most use to him thrive the best. The second point must also be answered in the affirmative, when we consider the early discovery by the Northmen, in even their rude ships; the slight barrier the Atlantic was to Europeans after Columbus had shown the way; the short time in which an "ocean greyhound" may land us in Europe; the many telegraph cables that bind us to the Old World; the late attempt to dispense with cables and send through the air, messages across the Atlantic; the very probable scheme to unite North America and South America by means of a railway by way of Isthmus of Panama; its location between Europe and Asia so as to have ready ocean trade with each. Yet, it is isolated enough to have developed institutions peculiarly its own, unhampered by Old World interference.

2. Boundary.

1st Land. Name it.

2nd Water.

1st Name the three oceans forming its water boundary.

2nd Name the most important one of the three, and give reason for importance.

3rd The least important one and reason for comparative nonimportance.

3. Ocean shore-line features.

1st Forms of water.

1st Seas.

1st Definition of sea.

2nd Caribbean.

1⁵ Location.

2⁵ Derivation of name. Named after the Carib Indians.

3⁵ What large coast indentation in about the same latitude in other parts of the world?

4⁵ Is it a benefit or a nuisance? To answer this question, note the influence of the sea upon the Gulf Stream, upon the moisture and temperature of the winds, its use as a highway of commerce, as a fishing ground, etc.

2^a Gulfs.

1^a Definition of gulf.

2^a Distinction between seas and gulfs.

3^a Notable gulfs on eastern coast.

1⁵ St. Lawrence.

1⁶ Derivation of name. A small bay of the gulf was first given this name because it was discovered on St. Lawrence day. Later the name was applied to the gulf and river.

3⁶ Large coast indentations in about the same latitude in other parts of the world.

4⁶ Is it commercially of much importance?

5⁶ Is it of any importance as a fishing ground?

2⁵ Gulf of Mexico.

1⁶ Reason for name. Derived from the Aztec word Mexitl, name of a divinity.

2⁶ Location.

3⁶ Nation the most interested in it. Why?

4⁶ Its importance.

1⁷ In regard to influence upon climate of the Mississippi valley.

2⁷ As a highway of commerce.

3⁷ As a fishing ground.

5⁶ Is it a benefit or a nuisance? Reason for answer.

6⁶ How many states of the area of your state are covered by its surface?

7⁶ The Mississippi river is said to carry to the gulf every year about 600,000,000 cubic feet of sediment. Is the gulf becoming smaller at present? If not, why not?

8⁶ How far did this gulf formerly extend into the region now the United States of America?

9 If land should take the place of the gulf, how would the climate of the United States be affected by the change?

3⁵ Other gulfs and statements of their importance or non-importance.

4¹ Notable gulfs on the western coast.

1⁵ Gulf of California.

1⁶ Location.

2⁶ Would the climate of the neighboring land be seriously affected if this gulf would become dry?

3⁶ Is it commercially important or unimportant?

4⁶ Why is there no large city on it?

3³ Bays.

1¹ Definition.

2¹ Distinction between bay and gulf. Would it be appropriate to call Hudson bay a gulf or a sea? Which is more land-locked, the Gulf of Mexico or Bay of Bengal? Gulf of St. Lawrence or Bay of Biscay? From these and similar observations what conclusion do you draw in regard to the application of terms "bay" and "gulf"? See International Dictionary under "bay."

3¹ Distinction between bay and harbor.

4¹ In general, are bays nuisances or benefits? Reasons for answer.

5¹ Important bays.

1⁵ On Arctic Ocean.

1⁶ Reason for non importance of bays.

2⁵ On Atlantic.

1⁶ Massachusetts bay,

1⁷ Location.

2⁷ Reason for name.

3⁷ Why important?

4⁷ Historic incidents.

5⁷ Seaport.

2⁶ Cape Cod bay,

1⁷ Location.

2⁷ Reason for name.

3⁷ Historic incidents.

4⁷ Seaport.

3⁶ New York bay.

1⁷ Location.

2⁷ Land boundaries.

3⁷ Waters bordering it.

4⁷ Its two divisions and connecting channel.

5⁷ Noted island in it.

1⁸ Staten. In the days of Dutch rule, this island was retained for the use of the government of the States of the Netherlands; hence, was called Staten Island, the Dutch for States being Staten.

2⁸ Bedloe's, named after an early owner. Belongs to United States government, and has on it Bartholdi's statute of liberty enlightening the world.

6⁷ New York bay is the most important bay in North America. Is it naturally superior to Delaware bay and Chesapeak bay, or did artificial means give New York City the advantage over Philadelphia and Baltimore? Up to 1820, Philadelphia had a greater population than New York City, and in commerce the latter city was outranked by Philadelphia and by Boston.

7⁷ Reason the sediment brought down by the Hudson does not fill up this bay, which is greatly land-locked. The tide arrives sooner in New York harbor, by way of Sandy Hook, than by way of Long Island Sound. Since

this sound narrows, the water is heaped up, so to speak, at the New York end and that at a time when the tide is falling in the harbor; hence a swift current rushes through East river at that time and the water thus supplied causes the current out of the harbor to be stronger than it would be otherwise and to scour the sediment out of the bay more effectively.

4⁶ Chesapeake Bay.

1⁷ Meaning of name. Derived from an Indian word meaning mother of waters.

2⁷ Location.

3⁷ Does the Susquehanna river enhance the commercial importance of this bay? Do the other rivers that flow into this bay?

4⁷ Fisheries.

5⁷ Historic incidents.

5⁶ Other important bays on the Atlantic coast of North America.

3⁵ On Pacific coast.

1⁶ San Francisco Bay.

1⁷ Derivation of name. It is the shortening of the name of an early Spanish mission there; "Mission de los Dolores de Nuestro San Francisco de Assis" (Mission of the Sorrows of Our Father Saint Francis of Assist.)

2⁷ Location.

3⁷ Bay on east coast in about the same latitude.

4⁷ The "Golden Gate." What is it? Why so called?

4³ Sounds.

1⁷ Define.

2⁷ Etymology. Derived from Anglo-Saxon and Icel "sund," (sound), a narrow sea or strait. The word "sund" is still used in this sense in Scandinavian countries.

3⁷ Difference between sound and bay.

4¹ Some noted sounds.

1⁵ Long Island Sound.

1⁶ Location.

2⁶ Does it have any influence on the climate along the coast?

3⁶ Is it used as a fishing ground?

4⁶ Do ocean steamers use it? The International Encyclopedia has this to say: "It is navigated by an immense number of coasting vessels and steamers. This sound is the route of extensive commerce between New York and the principal cities of New England, and is navigated by many lines of steamers and sailing vessels. The narrow and rock-bound strait called Hell Gate, at the western extremity of the sound, made this route practically unavailable for many years for vessels approaching from the ocean, but by the removal of the rocks by the U. S. government, a new and highly advantageous channel for ocean steamers was opened."

6⁶ Its importance in keeping New York harbor from filling up.

2⁵ Albemarle and Pamlico Sounds.

1⁶ Reason for name. Albermarle was so called by the early settlers in honor of Lord Albermarle.

2⁶ Are of use for navigation and for ale-wife fisheries.

3⁶ Peculiarity of formation of outer boundaries. The ocean waves strike the United States usually from the east while the shore from Long Island down has a southwesterly trend. This causes the water to transport, in a southwesterly course, sand and other sediment acquired from rivers and wave-action on cliffs. On shallow continental shelves the action of breakers that carry much sediment establishes barrier beaches (islands of sand), such as are found from Virginia to Florida. In regard to the extent to which the making of barrier beaches has been going on along the before-mentioned strip of coast, note what is said by N. S. Shaler, Pro-

fessor of Geology in Harvard, in his "Beaches and Tidal Marshes of Our Atlantic Coast:*" "By consulting the excellent Coast Survey maps of the Atlantic shore of the United States, the student may note the fact that there is an almost continuous waterway inclosed by these wave-made islands, extending in some cases for the distance of many hundred miles. * * * * So inconsiderable are these interruptions, that a small boat can, with infrequent portages, be navigated from near Norfolk, Va., to Bay Biscayne, in southern Florida. It has indeed been proposed to develop this natural waterway into a ship canal which would afford a safe and easy way for vessels passing along this dangerous portion of the continental shores." In his "Story of Our Continent" this same author says: "So continuous is this strip of land that it is possible to travel in a canoe through the water they enclose almost all the way from the mouth of the Hudson River to Cape Florida."

5³ Straits.

1⁴ Etymology of the word. See a good dictionary. It may help the pupil to note that the French looked upon the Detroit River as being a strait, hence the name Detroit, which means "strait." On the other hand we find the term river, in East River, applied to a strait, that water-way being salt water.

2⁴ Difference between strait and sound. "There is a tendency to call the larger connecting bodies sounds, and smaller, narrow connecting bodies, straits." J. W. Powell, in his monograph on "*Physiographic Features."

3⁴ Are straits detriments or benefits? To get pupils to form a conclusion on this question let them note the persistent efforts to get an isthmian canal (an artificial strait) between the two Americas. The early discoverers and explorers, beginning with Columbus, were eager to find a passage through America from the At-

* Published by the American Book Company.

lantic to the Pacific. Kings of ancient Egypt connected the Mediterranean with the Red Sea and the demands of modern commerce led to the Suez Canal.

4¹ Some North American straits.

1⁵ Davis Strait and Bering Strait are noticeable as links in the search for the Northwest Passage to India. Bering Strait is named after its Russian discoverer, Vitus Bering. It is only about 45 miles wide at its narrowest part and has islands in it; this would make it passable even in the rude crafts of savages. Its narrowness and lack of depth largely shut out the cold waters of the Arctic so there is no large cold current as in the Atlantic. McClure went through it in the only successful search for the Northwest Passage, though he made it from west to east. Norden-skjold came through in 1879, in the first successful search for the Northeast Passage. Nansen also made this passage by going through the strait and drifting westward. It is almost needless to say that these passages are of no commercial value.

2⁵ Strait of Belle Isle, between Labrador and New Foundland, is of some importance from middle of spring until well into autumn as it is used by steamers plying between Canadian and European ports.

2² Forms of land.

1³ Peninsulas.

1⁴ Etymology of the word.

2⁴ Definition.

3⁴ Would a seaman in going from New York to New Orleans find the peninsula of Florida an advantage or disadvantage? Would a sailor in going from Chicago to Cleveland find the peninsula of Michigan an advantage or a disadvantage? In going by water from Baltimore to Philadelphia how would a sailor regard the peninsula between Chesapeake Bay and Delaware Bay? From standpoint of commerce, are peninsulas detri-

ments or benefits? How is the climate of these peninsulas affected by the nearness of large bodies of water? Notice the agricultural products of Michigan in comparison with those of the Dakotas.

4¹ In general, are peninsulas advantages or disadvantages.

5¹ Does the greater number of peninsulas of North America trend in the same direction? May we, by noticing the peninsulas of North America, formulate a general rule in regard to nature's plan of arrangement?

7¹ Enumerate the notable peninsulas of North America with their peculiarities.

2³ Capes.

1¹ The etymology of this word takes us to the Latin "caput," meaning head, and we thus have a head of land projecting into the water. The same idea is embodied in the Anglo-Saxon "headland." Other terms varying with the nature of the cape, are promontory, point, spit, and shoal. One prominent feature to be brought out in regard to capes is their menace to navigation. They may be rocks or sand bars extending out into the ocean one hundred or more miles.

Some features of our light-house system and life-saving stations may be brought out. Mention may profitably be made of former gangs of wreckers that misled ships by false lights so that the vessels were wrecked, the people that were washed ashore alive were killed, and the goods saved by the wreckers were sold. This was once a common practice near Cape Hatteras.

In regard to how much shall be taught about capes, or which particular capes deserve mention, depends on how much the cape may have figured in human affairs or does so still. Thus, Cape Hatteras is considered the most dangerous on our Atlantic coast. It is made so partially by the Gulf Stream's drifting towards it from the south and approaching it to within about twenty

miles. Another reason is given by the United States Weather Bureau: "The force of surface winds is modified to a great extent by the topography of the country over which they pass. Cape Hatteras is a point extending far out into the ocean and, without the modifying influence of hills, valleys, or forests, is exposed to the full force of the winds from all points of the compass. As the point named above lies in the average track of the West India hurricanes that pass up the coast during the late summer and early autumn months, it receives the full force of these severe storms, while other points along the coast are protected, more or less, by the modifying influences of hills and valleys by which they are at least partially surrounded." The West India hurricanes usually leave the coast here and move eastward out into the ocean, thus leaving the coast to the north of this cape in less danger of storms.

The naming of capes is interesting. Cape Fear and Cape Lookout as neighbors of Cape Hatteras are suggestively named. Cape Henry and Cape Charles show the loyalty of the early Virginia settlers. Cape Cod was so called by Gosnold on account of shoals of cod fish he saw there. The Indian name for it was *Tamwock*, which means cod fish. Champlain called it Cape Blanc, "White Cape." Henry Hudson supposed this cape to be an island and called it New Holland. Cape Canaveral was so named by the Spaniards from the abundance of flowers there, the name meaning "Land of the Rose tree." In regard to naming of Cape Gracias a Dios, Irving in his *Life of Columbus* says this: "At length after struggling for upwards of forty days since leaving Cape of Honduras, to make a distance of about seventy leagues, they [the Spaniards] arrived at a cape where the coast, making an angle, turned directly south, so as to give them an easy wind and free navigation. Doubling this point they swept off with flowing sails and hearts filled with

joy; and the admiral [Columbus], to commemorate this sudden relief from toil and peril, gave to the cape the name Gracias a Dios, or “Thanks to God.”

2¹ Some other noted capes.

3³ Isthmuses.

1¹ Etymology.

2¹ Are isthmuses detriments or benefits? Note what is said under straits and peninsulas and draw your conclusion.

3¹ Important isthmuses.

1⁵ Isthmus of Panama. This belongs politically to South America, but, on account of the canal projects, is more intimately connected with affairs of North America and will hence be considered here.

1⁶ Length about 470 miles.

2⁶ Width, narrowest part about 31 miles.

3⁶ Grand divisions joined?

4⁶ Countries joined?

5⁶ Waters separated?

6⁶ General direction of trend. East and west.

7⁶ Historic incidents.

1⁷ Balboa, an adventurer who escaped his creditors on Hayti by being, in a cask, conveyed on board of a ship, rose, by superior ability to chief command at Darien, now Isthmus of Panama. He discovered the Pacific Ocean, naming it South Sea. By means of Spaniards, Indians and negroes, he carried over the mountains to the Pacific, all the timber, iron and rigging for two ships for use on that ocean, only to find that he could not use the timber as it was subject to destruction by a certain kind of worm. Later he was beheaded.

2⁷ Pizarro crossed here on his way to Peru.

3⁷ Panama Railway completed in 1855.

1⁸ What circumstances demanded a railway at that place then?

4⁷ Panama Canal.

1⁸ Some reasons for an isthmian canal.

1⁹ Give our Pacific states a better market in the Eastern states and in Europe for grain, lumber, fruit, wine, and fish; in return they would get manufactured articles cheaper.

2⁹ Alabama coal and iron could be sent to Pacific states.

3⁹ There is a probability that Japan could get her supply of raw cotton just as cheap from us as at present from India.

4⁹ Our Asiatic trade.

5⁹ Our Pacific possessions.

6⁹ Military considerations.

3⁸ Advantages of Panama route over Nicaragua route.*

1⁹ The shorter distance,— 46.5 miles, against 183.66 miles of Nicaragua canal. Since vessels must slacken speed in the canal, it is evident that the shorter canal allows the greater gain in time.

2⁹ Both termini, Colon and Panama, have good harbors. The harbor of Greytown is shallow and given to silting. The harbor of Brito is too open to afford much shelter for vessels.

3⁹ It is paralleled by a railway. This is a great help in forwarding material for the building of the canal and also afterward in maintaining it.

4⁹ With improvements in engineering and in methods of excavation a sea-level canal, i. e., without locks, may be obtained.

4⁸ Disadvantages of Panama route.

1⁹ Greater distance from United States. It is 587 miles nearer from New York to San Francisco by way of Nicaragua than by Panama. For a fairly fast

*These statements are taken from the Congressional Record, with exception of statistics of Nicaragua route, which the Commission has since changed.

steamer this is equivalent to two days' sailing, or a saving of more time than is required to pass through the canal.

2ⁿ Unhealthful climate.

3ⁿ Elevation to be overcome by means of locks or leveling down, 346 feet against 165 feet in Nicaragua.

4ⁿ Torrential rains and consequent rise in streams. The Chagres River, which is known to have risen 42 feet in one night, would be a constant menace.

5ⁿ Calms prevailing on the Pacific in the latitude of Panama. Capt. William L. Merry, minister to Costa Rica, reports that at one time, when in a steamer bound for San Francisco, he passed a sailing vessel 40 miles south of Panama, bound for that port; that he went to San Francisco, unloaded his cargo, took another, and returned to Panama, passing the same sailing vessel still bound in and ten miles from port.*

5ⁿ Some features of Nicaragua Canal.

“The Nicaragua scheme includes a large, deep harbor at each end of the canal; a ditch from Greytown, on the Atlantic, to the San Juan River a few miles above its junction with the San Carlos River; a channel dredged in the San Juan to Lake Nicaragua, and across the Lake; and a short canal dug across the divide between the lake and the Pacific at Brito. The waterway will be 183.66 miles long, 300 feet wide and 35 feet deep, and will involve some interesting engineering feats.

“Greytown harbor is only 25 feet deep, and has sand bars less than six feet under water. A basin 35 feet deep and 1,800 feet across will have to be dredged there, and protected from sea waves and sand by jetties—pens of loose stone, 3,500 feet long, and rising from the harbor bottom to six feet above water. Less work will have

* It is said that one-fourth of all large ocean vessels now constructed are sailing vessels and that three fifths of our ocean traffic is still carried on in such craft.

to be done at Brito. The two harbors will cost about \$3,700,000.

"Greytown harbor is so shallow that machinery and materials for the canal cannot be landed there. They will be put ashore at Monkey Point, 45 miles farther up the coast, and be hauled to Greytown by a railroad which Nicaragua is building. But to deliver them along the canal wherever needed, 100 miles more of railroad must be built, at a cost of \$7,575,000.

"Lake Nicaragua, from which the San Juan flows to the Atlantic, varies as much as thirteen feet in depth during the year. To dredge a lake channel which would be 35 feet deep at low water is too expensive. The answer to this great problem, which threatened to spoil the whole canal project, is an enormous dam which will keep the lake at about the same level. The Conchuda dam, as it is called, will be across the wide San Juan, a few miles above the San Carlos. It will have many sluice ways and great gates operated by machinery, which will let the water roll through during the wet season, but dam enough of it during the dry season to keep the upper river and the lake at the right level. This dam will cost over \$6,000,000."—Little Chronicle.

The trip of the Oregon from San Francisco to Jupiter's Inlet took sixty-eight days and the coal it used cost \$46,908.28. By way of the Nicaragua canal it would have taken seventeen days and the cost of the fuel would have been \$3,523. But still more important than time or cost of fuel was the greater risk of loss of ship and lives of our countrymen in the not only longer but much more perilous route around Cape Horn.

The distance from New York to San Francisco via Cape Horn is 15,600 miles; via Nicaragua canal, 4,900 miles; via Cape Horn, New Orleans is 380 miles farther from San Francisco than Liverpool is, but a Nicaragua canal would put New Orleans nearer than Liverpool by

3,480 miles; via Cape Horn, New York and Liverpool are about equally distant from the American Pacific ports; via Nicaragua, New York is 2,700 miles nearer to them than Liverpool is. The distance from New York to Yokohama via Nicaragua is 2,000 miles less than from Liverpool to Yokohama via Suez canal. This would give New York the advantage in trade with Japan.

2⁵ Other isthmuses.

4² Ocean currents.

1³ On Atlantic.

1⁴ Warm. Gulf Stream.

1⁵ Trace its course from Caribbean Sea to Iceland and to England.

2⁵ Reason for the course it takes.

3⁵ Reason for name.

4⁵ Effects.

1⁶ On account of warmth of its waters it enables reef-building corals to live as far north as Florida, much farther north than they would otherwise be.

2⁶ Since its average current is two and one-half miles per hour, it may accelerate or retard the speed of vessels. Sailors can tell by the deep-blue color of the water and by means of thermometers whether they are in the stream.

3⁶ In connection with the Arctic Current it produces fogs near New Foundland. In early fall the water in lakes and streams in our latitude is warmer than the air, especially in the morning. The surrounding cold air chills the warmer air over the water and makes its vapor visible as fog. In the same manner the warm air over the Gulf Stream is chilled and fog is produced. Since the Grand Banks off New Foundland are much frequented by fishing vessels, and since the course of ocean steamers plying between this country and England is over the Banks, the prevailing fogs make navigation dangerous here.

To add to the danger, the Arctic Current brings large numbers of ice-fields and ice-bergs into this locality.

4⁶ Formation of the Grand Banks and their fishing grounds. To the southeast of Newfoundland is a submarine plateau being about 450 miles long in a southeasterly direction with a width of several hundred miles. At this point the Arctic Current sinks below the surface and gives over its load of icebergs and ice-fields to the warm Gulf Stream. These are quickly melted and the rocks, earth, etc., carried by them drop to the bottom. Thus, in the long course of time the Grand Banks have been formed. Materials brought by the two currents furnish food for small marine animals and these in their turn are food for larger ones so that the waters teem with fish. Silver, Burdett & Co.'s "Our American Neighbors" gives a most excellent description of the fisheries here.

2¹ Cold. Arctic, or Labrador Current.

1⁵ Comes down on the west coast of Greenland, skirts the shore of Labrador, New Foundland, New England States, and may be traced to Florida, though rather "in streaks" than in a continuous stream. It is sometimes called the "Cold Wall."

2⁵ Effects.

1⁶ Those given in connection with Gulf Stream.

2⁶ The fish that are used so much for food, such as cod and herring, are cold water fish, so that if this cold stream did not flow along the New England coast, our fishing industry could not be what it is. So the "Cold Wall" is not an unmitigated evil.

3⁶ The climate of Labrador and of New England are made much colder by this current. Compare temperature and vegetation of British Columbia with that of Labrador. Even Alaska is far warmer than Labrador. Give causes.

4th Seal fishing on coast of Labrador. Seals come south on the ice-fields, in large numbers in spring.
2nd On Pacific.

1st Warm. Japan Current, or Kuro Siwo (Dark Stream); "dark," because it is dark blue. In noticing the climatic effect of this current there must be born in mind the fact that when winds blow into regions colder than themselves, the effect is rain, generally; when they blow into regions warmer than themselves, the effect is drouth. This warm current can not go north far enough to lose its heat, hence when it flows southward from Alaska along the west coast of North America its most marked effects are those of a warm current. It greatly tempers the climate of Alaska since the current is warmer than the land of Alaska. The winds blowing over it become warmed and since they blow into a region colder than themselves they yield rains. As the current gets farther south, the summer temperature of the land is higher than the temperature of the current. Hence, winds that come from the ocean do not yield precipitation until they become chilled in the mountains. In winter the temperature of the land is lower than that of the current, hence the ocean winds yield rain along the shore and inland. This feature is marked along the whole coast southward from Alaska, and becomes the most marked in southern California. Here the dry season prevails from May to November, when the temperature of the land is higher than that of the current. The coast of northern Mexico has still less rainfall than Southern California because the winter temperature does not sufficiently chill the ocean winds. This holds true about as far south as 23° N.

5 Physical features.

1st Mountains.

1st Eastern Highlands.

1st Divisions.

1st Appalachian System.

1st Etymology of word Appalachian.

2nd Termini of this system. St. Lawrence River in the north and northern part of Georgia and of Alabama in the south.

3rd Trend.

4th Position favorable or unfavorable in regard to rain-bearing winds?

5th Influence on course of history. In this brief work attention can be called to but a few facts in this line. However, the thoughtful student will find pleasure in investigating this subject thoroughly. A good work on this subject is Shaler's "Man and Nature in America."

The early English settlers were by these mountains hemmed in along the sea shore. When the struggle with the French finally came, they were a compact body compared with the French, who extended from the Gulf of St. Lawrence to the Gulf of Mexico, through the Mississippi Valley. With such an advantage the issue could hardly be doubtful.

When Kentucky and other states west of the mountains began to have considerable population, since communication with the Atlantic was difficult the settlers began to clamor for an outlet for their products and there were mutterings of cutting loose from the United States and setting up a government of their own. Under such pressure the United States government made strong efforts to secure the Mississippi River so that the settlers would have a market at New Orleans. The Louisiana Purchase was the result.

Slavery was by nature shut out of the mountain region; and, when the Civil War came, not only did these mountains cut in two the Confederacy east of the Mississippi and prevent rapid co-operation between the two

parts, but also furnished over 100,000 soldiers for the Union armies.

6⁶ Mountain groups.

1⁷ White Mountains.

1⁸ Location.

2⁸ Reason for name.

3⁸ Noted peak.

4⁸ Interesting features.

2⁷ Adirondack.

1⁸ Etymology of the word. The word Adirondack was by the Iroquois applied to their Algonquin enemies and means, "He eats bark." The Indian name for this mountain group meant, "The gloomy wilderness."

2⁸ Location.

3⁸ General character of the region.

4⁸ A large part of this region is now owned by the state of New York as a forest and game reserve.

3⁷ Catskill. The word "kill" is a Dutch word and means stream. There were many wild cats, lynxes and panthers along a stream running from the mountain group, hence was called "Kaater's Kill," and the mountains were named after the stream. Read Rip Van Winkle, and the "Postscript" to it concerning the Indian legends of the Catskill Mountains.

7⁶ Ranges.

1⁷ 5⁷

2⁷ 6⁷

3⁷ 7⁷

4⁷ 8⁷

8⁶ Evidence of age.

9⁶ Depressions along which they may be more easily crossed.

1⁷ Along the Hudson and Lake Champlain.

2⁷ Valley of the Mohawk. How has man utilized this natural depression?

3⁷ Valleys of the Potomac and the Monongahela played

an important part in settling of the Ohio Valley and in French and Indian war.

4⁷ A few passes, the most noted of which is Cumberland Gap.

10⁶ Rivers cutting their courses through one or more ranges.

1⁷ Connecticut. 5⁷

2⁷ 6⁷

3⁷ 7

4⁷ 8⁷

Notice difference in direction of flow between the rivers north of the New River and the New and those south of it.

When a river cuts through a mountain chain, the general supposition is that the river existed before the mountains. When the mountain upheaval occurred it was so slow that the river cut its way down at the same rate at which the mountains went upward.

11⁶ Mineral deposits. Locate chief region of each deposit. Name the city forming the center of industry.

1⁷ Coal: Western Pennsylvania. Pittsburgh.

2⁷ Iron.

3⁷ Petroleum.

4⁷ Natural gas.

5⁷ Graphite.

6⁷ Granite.

7⁷ Zinc.

8⁷ Gold.

12⁶ Names of some well known peaks.

13⁶ Highest mountain east of Mississippi River. Mt. Mitchell, 6,688 feet high, in Black Mountains, N. C.

2⁵ Laurentian Highlands.

1⁶ "Laurentian," derived from word Lawrence.

2⁶ Location. Northeast British America.

3⁶ Termini. St. Lawrence River on the south, and Atlantic and Arctic oceans on the north.

4⁶ Trend.

5⁶ Reason for being so little known. The region is little frequented by civilized man.

2³ Western Highlands.

1¹ Divisions.

1⁵ Rocky Mountains. Hardly any two geographies agree in regard to what is really meant by the term "Rocky Mountains." The best authorities are given here. J. W. Powell in his "Physiographic Regions of the United States," says this: "In an important sense all the mountains west of the great plateaus constitute a single group, though the regions into which they are divided are plainly demarcated. There is a great diversity, and all known types are found; and there are large areas of plateaus and still greater areas of valleys; yet for some purposes it is convenient to use a general term for them all. For this purpose two names have been used, Rocky Mountains and Cordilleras. The term Rocky Mountains has sometimes been applied to the entire group of groups, both by writers and in popular speech. The term "Cordilleras" has been used by a few writers to cover the same region, but popular usage is confined mainly to the term Rocky Mountains. This name has been used in this broader sense by the officers of the general government, to cover the entire region, and has been woven into the federal laws with this meaning; so that official and popular usage coincide." The foregoing refers, of course, to that part of the Western Highlands lying within the United States. Johnson's Universal Encyclopedia states: "This great mountain system extends through the United States from its southern border, through British America and Alaska to the Arctic Ocean, or from the 30th to the 70th parallel north latitude." The International Encyclopedia limits the

application of the term as follows: "That portion of the great ranges of mountains in the central and western portions of North America which lies in the United States and British possessions." We thus see that our Western Highlands are divided into two regions; the Rocky Mountains north of the southern boundary of the United States, and the mountains of Mexico and of Central America south of that boundary.

1st Reason for name. "The name Rocky Mountains is very appropriate. On the mountains and plateaus of the greater part of the region naked rocks are seen to an extent rarely known elsewhere on the globe. The mountains are composed of crags and peaks of naked rocks, and the mountain streams run at the feet of towering cliffs, in deep gorges beset with rocks." Johnson's Universal Encyclopedia.

2nd Termini.

3rd Evidences of mountain youth.

4th Evidences of present volcanic activity.

5th Evidences of past volcanic activity.

6th Effect on rain bearing winds in the United States.

The high ranges along the coast deprive the winds of their moisture and thus there is an immense arid region, estimated to cover two-fifths of the United States without Alaska. It is also estimated that only about four per cent of this area may be reclaimed by irrigation, and only about ten per cent is forest clad.

Why do the high inland elevations get rain, while the valleys get comparatively little?

If there were no mountains in this region except the most easterly chain and the land would run in a gradual slope to the Pacific, what would be the character of this region?

7th Name the most noted ranges.

8th Names and location of the highest two peaks. Mt.

McKinley, 20,464 feet, in Alaska; Mt. Logan, 19,500 feet, in Cascade range, Canada.

9⁶ Name and location of highest peak on U. S. territory excluding Alaska. Mt. Whitney, 14,898 feet high, in Sierra Nevada range, California.

10⁶ Minerals,

11⁶ Are there across this system natural depressions to facilitate crossing as there are in the Appalachian system? Notice the railways across the Rockies to see whether they follow river valleys.

12⁶ Rivers cutting their courses across one or more ranges.

13⁶ Noted natural phenomena.

1⁷ Canyons.

1⁸ Derived from a Spanish word meaning "hollow."

2⁸ Theory of formation.

3⁸ Benefits or detriments?

4⁸ What is remarkable about them?

5⁸ Name and locate some noted ones.

2⁷ Enumerate other phenomena.

14⁶ Trees and other plants peculiar to this region; that is, not found native elsewhere.

15⁶ Animals peculiar to this region.

16⁶ Description of this region in Longfellow's *Evangeline*.

Far in the West there lies a desert land, where the mountains
Lift, through perpetual snows, their lofty and luminous summits.
Down from their jagged, deep ravines, where the gorge, like a gateway,
Opens a passage rude to the wheels of the emigrant's wagon,
Westward the Oregon flows and the Walleway and Owyhee.
Eastward, with devious course, among the Wind-river Mountains,
Through the Sweet-water Valley precipitate leaps the Nebraska;
And to the south, from Fontaine-qui-bout and the Spanish sierras,
Fretted with sands and rocks, and swept by the wind of the desert,
Numberless torrents, with ceaseless sound, descend to the ocean,
Like the great chords of a harp, in loud and solemn vibrations.

2⁵ The mountains extending from the Rio Grande to South America. This part has no definite name as a system.

1⁶ Respects in which they differ from the Rockies.

2² Plateaus. The following quotation from J. W. Powell's "Physiographic Features" illustrates one phase of the application of terms in the field of geography: "It is not practicable to discriminate clearly plateaus from plains, and in the common practice of applying names some confusion arises. The same region of country will sometimes be called a plain and sometimes a plateau; for a plateau is but an elevated plain, and the degree of elevation and gradation to which it must submit ere its name is changed cannot always be determined with exactness. * * * * * A plateau is only a lifted and rather irregular plain, and a plain is a more regular and less lifted plateau."

1³ The American plateaus in which the most human interest centers are those of Mexico and Central America, because they afford the best conditions for human life in those regions. The coastal plains there are too unhealthful and the mountains too cold and barren for the proper development of human energies.

2³ The Great Plains are noticeable on account of their vast extent from the interior of Canada into Mexico, from the base of the Rockies eastward. Their grazing industry, the railways crossing them, the attempts at irrigation, and their being not far from the geographical center of a great and prosperous country, make this plateau an object of interest.

3³ The Western Highlands abound in plateaus. Some are noted for natural scenery and are known as "parks." Others are noted for being forbidding deserts. Others again are noted for being capable of irrigation and thus furnish the much needed agricultural products for the mining regions.

3² Plains.

1³ Coastal Plain. Extends from Cape Cod along the entire coast to South America.

1st Atlantic Coast Plain. Extends from the lower Hudson in a southwesterly direction between the Atlantic ocean and the Piedmont Plateau. The watershed between the rivers flowing into the Atlantic and those flowing into the Gulf marks the boundary line between the Atlantic Coast Plain and the Gulf Plain. Where the plain merges into the Piedmont Plateau is a well marked line of demarkation called the "Fall Line," readily traced by the waterfalls and rapids of the streams. Along this Fall Line are a number of flourishing cities—Trenton, Wilmington, Washington, Richmond, Raleigh, Columbia, Augusta, Milledgeville, Macon and Columbus (in Gulf Plain) in Georgia. The sites of these cities were formerly occupied by Indian villages, because there was a break in the navigation of the streams, and from these points the Indians could go up stream and down stream for war, chase or trade. Later, when the white man came, trading settlements were located at these places, and later still the falls furnished water-power for factories, and marked the limit of steam navigation from the coast. Thus does the human family tread in paths laid out by mother nature.

2nd Gulf Plain. Extends from Atlantic Coast Plain on the east to the Rio Grande on the west in shape of inverted "V," northward to mouth of Ohio River.

3rd Coast plains of Mexico and Central America. Find characteristics.

2nd Prairies. The word is derived from a French word meaning "extensive meadow." Bryant, in his poem "The Prairies," alludes to this.

"These are the gardens of the Desert, these
The unshorn fields, boundless and beautiful,
For which the speech of England has no name—
The Prairies."

2nd There are two prairie regions, the boundaries of

which are necessarily irregular and indefinite. The northern one extends westward from northwestern Ohio until it merges into the Great Plains, and northward from the Ohio and the Missouri.

The southern prairie region runs down from the northern between the Great Plains on the west and the Ozark Mountains and the Gulf Plain on the east to the Rio Grande.

3⁵ Reason for being treeless at the coming of the white man. Lack of rainfall in some parts; also fires started by Indians to increase pasturage for the buffalo. It is supposed that much that was forest formerly was thus reduced to open prairie.

3⁴ The Northern Plain. Slopes northward from northern limit of the United States between the Rocky Mountains and Hudson Bay. Contains the "Barrens," or feeding grounds of the caribou and the musk ox.

4¹ Other plains of some extent.

4² Rivers.

1³ Primary uses of rivers.

1¹ Drainage, or carrying off the waste water of the land.

2¹ Gradation of earth's surface

2¹ Four secondary uses.

3³ Many interesting historical incidents may be brought out in connection with the study of rivers. Some rivers bear in their names the stamp of the people naming them. The names James, Charles, Delaware, and Hudson are unmistakably English. Such names as St. Lawrence, St. Croix, St. John and St. Mary's bear the stamp of people of the Roman Catholic faith. Some of the names throw light on the peculiarities of the river; Connecticut means long; Colorado, red; Tennessee, big bend; Big Sandy was so called from its sand bars. In regard to motives that impel explorers to give certain names to rivers, Dr. Coues in his lecture on Lewis and

Clark's expedition gives a good account: "The mouth of the Yellow Stone was reached April 25. They (Lewis and Clark's forces) went on and discovered Milk River, which they named from the color of the water; they passed the Musselshell; they reached Judith's River, which Capt. Clark named for the lady he afterward married; they reached Maria's River, which Capt. Lewis named for a *lady whom he never married.

* * * * They went on again and named Smith's and Dearborn's rivers for the then secretaries of the navy and of war, respectively. They soon entered the stupendous chasm they called the Gates of the Rocky Mountains, swept past the present site of Montana's capital, and then Capt. Clark, who was in advance, at one moment discovered the three great rivers which unite to form the Missouri—the Jefferson, the Madison and the Gallatin, so called for the President and two of his cabinet—names they bear today. With an unerring instinct the explorers chose the Jefferson as the main continuation of the Missouri, and went up it as far as they could push or drag their boats. In passing its three principal branches, they named them Philosophy, Philanthropy and Wisdom rivers, in recognition of the three great qualities to be found in Jefferson; but a later age ('which knew not Joseph') changed the names to Willow Creek, Stinking Water, and Big Hole river."

4³ Name the most important three rivers in regard to drainage.

5³ The most important one in regard to commerce. Detroit.

6³ Name three short but commercially important rivers. Detroit, Hudson and Delaware.

7³ Name three large but commercially unimportant rivers. Colorado, Rio Grande, Missouri.

8³ Rivers used to float rafts.

* Daughter of President Jefferson.

9th Rivers much used for water power.

10th Rivers noted for fish.

11th Rivers connecting lakes.

12th Rivers forming boundaries of political divisions.

13th Some rivers of historic fame.

14th Some long and shallow rivers.

15th Rivers with canyons.

16th Rivers having less water at the mouth than higher up in course. There are a number of rivers of this kind. The most of them start from the Rockies and flow long distances through dry or comparatively dry regions, thus losing by evaporation and by sinking into the soil. The Missouri is a good example. After leaving the mountains it gets no strong tributary in its lower course. While the rivers appear long, they are shallow and narrow. In the summer and fall the rainfall in this region is not copious and the evaporation great. In addition, the Missouri furnishes water for the many artesian wells of South Dakota. Other rivers of this kind are Platte, Arkansas, Rio Grande, and the Colorado flowing into Gulf of California. The last named river, with the exception of the Nile, flows through a greater distance without being joined by a tributary, than any other river of the world. Part of this distance is through deserts, where the evaporation is great.

17th Rivers having noted scenery.

18th Rivers named after some peculiarity of theirs.

19th Rivers named after white persons.

20th Rivers named after Indians.

21st Rivers showing by their names the nationality or religion of the namer.

22nd Before the day of railways, rivers were of much more commercial importance than now. The Missouri used to be of considerable commercial importance, but has now dwindled into insignificance. However, in the earlier development of our country, these highways

were all important. The Century Magazines for November and December, 1901, have excellent articles on the importance of rivers in the development of our country.

6 Political Divisions.

1² Do the physical features of North America favor the establishment of large nations? Are the present boundaries such as those separating Canada, United States and Mexico, natural or arbitrary?

In primitive times, rivers, lakes and mountains served as fairly effectual boundaries between tribes and nations. Now such physical features are no longer barriers. The Great Lakes are not considered a barrier between this country and Canada; rather, on account of their being a common highway of commerce for both countries, the tendency is to follow the dictates of nature to have the St. Lawrence system under the control of one nation just as the whole Mississippi system is in one country. The whole boundary line between our country and Canada is arbitrary and nature has done nothing to keep apart the two countries now existing side by side. What is your conclusion in regard to the Mexican boundry?

But for a common language and common traditions the Appalachian Mountains would have become a boundary between the people along the Atlantic coast and those of the Mississippi Valley. Even with these favorable conditions there were serious mutterings of discontent west of the Appalachians early in the Nineteenth Century.

But for swift means of communication and transportation our Pacific and our Rocky Mountain states could hardly form one nation with our Atlantic states.

2² Independent.

1³ United States of America.

1' The physical features of the United States have been mentioned to some extent under the general treatment of the physical features of all North America, and the same method of treatment may be followed more in detail in studying our country. Various methods may, of course, be pursued in a detailed study of our Union.

It is a good plan to find the causes for the existing order of things. There is hardly a state that does not excel in some product. If the product is a plant or a manufactured article, find what are the conditions that make the state excel in that line.

Thus Florida is, by its climate, unfitted for wheat. Its soil makes corn and cotton unprofitable. But its equable and semi-tropical climate invites fruit culture and gardening. Its soil is poor, but nature has put close at hand vast stores of fertilizers. Swift steamers and trains carry the products to northern cities. So Florida is a gardening and fruit growing state.

If you investigate in your grocery store, you will find the greater quantity of canned goods, even corn and tomatoes, sent in from other states. Why is it that far off Maryland can successfully compete in canned corn with the canneries of a corn growing state? An inquiry from the Department of Agriculture brought this answer: In Maryland "There are some few [canneries] that put up only one class of product, but as a rule the canneries arrange so they can handle at least three or four different vegetables or fruits. A large portion of the canneries of Maryland are located in the rural districts, hence there are seldom more than three vegetables or fruits that can be secured at one place in such abundance as will warrant canning. There are some canneries located in Baltimore that run pretty much the year round in canning fruits, vegetables, oysters and fish products. Some of these canneries handle large amounts of fruits not raised in the state, as, for instance, pine-

apples, which are handled in Baltimore in large quantities.

“I expect the cost of labor, both in raising these products and the labor in the canning houses, is much cheaper here [Maryland] than with you [Iowa]. Also materials are likely to be somewhat cheaper with us than in your section. Most of the labor in canning houses is performed by foreigners who move out into the country with their families and virtually camp out during the canning season. In fact, they follow this class of work the year round, going into the berry sections, picking berries, peas, beans, etc; from there to the canning houses, and from the canning houses back to the cities to engage in oyster shucking, etc. This is a very cheap yet efficient class of labor for such purposes.” Much material may be gathered in this line from newspapers, magazines, government publications, etc.

For the purposes of study, the states of our Union may be grouped according to location as is done in the most school geographies and in government reports. Another way of grouping is according to products. This grouping may lead to much fruitful investigation. Thus, California and Florida are both orange states; what similar conditions prevail? Both do not raise much corn; why? In Florida the soil is too poor to raise corn profitably and in California the heat is not intense enough to ripen corn properly. California raises wheat, Florida does not; what difference in conditions? Delaware, Michigan and California are noted peach growing states. What causes produce similar climatic conditions? What dissimilar climatic conditions in these two states?

Maine is not a corn growing state, because, though in the river valleys the soil is fertile enough, the autumns are not warm enough to ripen corn properly. For this reason the people resorted early to canning corn. The following is from the Department of Agriculture: “Maine

was the pioneer state in the corn canning industry, and the excellent quality and flavor of Maine sweet corn has enabled packers to maintain themselves against the powerful competition of the corn growing states. The whole number of factories in the state is about 75. In 1899, the latest year for which state statistics are at hand, the area planted in sweet corn was 11,050 acres, and the number of cans packed was 22,100,000." In that year the corn canning states ranked as follows: New York, Illinois, Maine and Iowa, the names being given in order of rank. In the *May Century* for '97 a writer on California, says: "It is a curious fact that the supply of canned sweet corn [for California] comes mostly from Maine."

An inquiry into the causes that make certain localities and sites proper ones for the location of cities is also conducive to stimulate geographical research. Thus New York City lies on an exceptionally fine bay, and at the mouth of a navigable river leading into a fertile country. The Erie Canal gave it an impetus that put it far ahead of its early competitors, — Philadelphia and Baltimore.

Philadelphia is the type of a seaport located neither at the ocean nor at the mouth of a river, since it is about 100 miles from the ocean and 40 miles above the mouth of the Delaware River. On account of the cheapness of carrying, ocean vessels take on their cargoes as far inland as possible. Hence we find many seaport cities located far up the mouths of rivers. New Orleans is about 100 miles above the mouth of the Mississippi River and Montreal 425 miles above the mouth of the St. Lawrence.

Mention has been made of the cities located along the Fall Line on the western border of the Atlantic Coast Plain. In the same manner we find Louisville, Ky., located at the Falls of the Ohio, and St. Paul and

Minneapolis at the falls of St. Anthony, in the Mississippi.

In considering the reasons why certain industries are located where they are, the native ability of the people must also be taken into account. The water power of the New England States enabled them to build up great manufacturing industries; their favorable sea coast led them early to commerce. But above all was the industry and the really wonderfully inventive genius of the people. The activity of this genius is shown by the number of inventions. In 1900 Connecticut led all the other states in the number of patents issued per capita, being 1 to every 1203 inhabitants; Massachusetts ranked second and Rhode Island third. In contrast we find South Carolina with only one patent to every 28,517 inhabitants.

We find Providence, Rhode Island, to have gained the supremacy in the making of jewelry, because one of its jewelers invented the process of "filling" the gold with cheaper material and applied machinery in the manufacturing. Inventive genius made this little state lead in the manufacture of silverware, and in 1890 it made nearly one-half of this kind of ware produced in the United States.

In Connecticut we find Charles Goodyear, the inventor of vulcanized rubber; Samuel Colt, the inventor of the famous Colt's revolvers; and Terry and Jerome, pioneers in the clock industry. Here were also made the first modern bicycles. The following is from the census report of 1900: "The patents granted to the inventors of one city in Connecticut show a small per cent. of an infinitude of small wares, such as bottle-top handles, shot pouch chargers, lamp holders, bread toasters, scissors sharpeners, machines for sticking pins in paper (which helped Connecticut to undersell other markets), picture nails, eyelets, napkin holders, utensels for mixing liquids,

perforated music sheets, washing machines, drawer pullers and church pew head rests.”

Sometimes we find an industry located far away from the place where we should expect it. In Omaha, Neb., we find immense works for smelting silver ore, yet both the ore and the fuel for smelting it have to be hauled long distances. How is this accounted for?

The editor of the “Omaha Bee” gave the following excellent explanation in a personal letter, which is published by his consent: “It does not pay to have smelters at small mining camps on account of cost of machinery, lack of fuel, etc. Hence, many small mining camps send their ore to a central smelter which must necessarily be at a place easily reached by rail from many points. The Omaha smelter handles vast quantities of ore from Mexico and British Columbia, especially the latter. As there is a duty on silver ore, the smelter must, of necessity be located where there is a custom house as it is smelted “in bond” and the product shipped out of the country again to avoid payment of duty.

“Another reason is that drawing ore from so many sources the smelter is enabled to maintain and operate a much larger plant than if it handled the product from only one district. In this there is economy in operation and also allows the introduction of the most approved methods which, in many cases, are impracticable in a small plant. For instance, the smoke from all the smelting furnaces at the Omaha works passes through several thousand feet of inclosed passage ways until all the solid matter settles. From this are saved the arsenic, gold and silver, which became volatile in the intense heat of the furnaces. In a small smelter this would not be worth the trouble and expense, but in a large institution it is a very considerable item.

“The most important reason of all is that to get the best results both in economy of smelting and in the

greatest per cent. of the product from many, in fact, the most of the ores, it is necessary to mix them with ores of another nature. These are usually not found in the same district with the silver ore and have to be purchased and shipped to the smelter wherever it may be located. This would be impracticable in remote mining camps.

“Then there is a market for the by-products, such as copper, and even for the slag, which may be used for paving purposes.”

Leading states in some of our products in 1900, unless otherwise stated.

APPLES—

New York, 6,400,000 bushels; Michigan, 4,200,000 bushels.

BARLEY—

California, 14,856,170 bushels; Iowa, 11,708,822 bushels.

BUCKWHEAT—

New York, 3,280,158; Pennsylvania, 3,188,402 bushels.

CORN—

Iowa, 305,859,948 bushels; Illinois, 264,176,226 bushels.

COTTON—

Texas, 2,438,555 bales; Georgia, 1,284,000 bales.

OATS—

Illinois, 133,642,884 bushels; Iowa, 130,572,138 bushels.

POTATOES—

Michigan, 16,630,941 bushels; Wisconsin, 15,619,641 bushels.

RICE '99—

Louisiana, 107,792,000 pounds; South Carolina, 23,054,720 pounds.

RYE—

Pennsylvania, 4,416,299 bushels; New York, 3,189,165 bushels.

TOMATOES, CANNED, '99—

Maryland, 3,000,000 cans; New Jersey and Indiana, each 800,000 cans.

WHEAT —

Kansas, 82,488,655 bushels; Minnesota, 51,509,252 bushels.

COWS, MILCH, '99—

New York, 1,478,416; Iowa, 1,263,283.

HORSES, '99—

Texas, 1,125,645; Illinois, 983,233.

MULES—

Texas, 260,502; Missouri, 165,026.

SHEEP—

New Mexico, 3,786,000; Montana, 3,717,000.

SWINE —

Iowa, 3,408,281; Missouri, 2,949,818,

WOOL—

Montana, 9,627,444 pounds; New Mexico, 7,402,975 pounds.

MANUFACTURE OF COTTON GOODS —

Massachusetts, South Carolina, North Carolina.

SALT—

Michigan, 7,206,510 barrels; New York, 4,894,852 barrels; Kansas, 1,645,350 barrels.

The adaptation of some of the states for the products in which they lead is so well known that no explanation is necessary. Other points may need investigation. We find the leading potato states to be such as do not raise much corn on account of the summers' not being long or hot enough. The same is true of rye, and in addition rye is raised in the higher parts of the two states mentioned, places in which wheat may be in danger of frosts. Buckwheat is a short summer crop and may be sown when it may be seen that other crops will be failures. In the higher parts of New York and Pennsylvania late spring frosts are not uncommon, so buckwheat is one of the safest crops the farmer has.

Sheep need less water than cattle and can also subsist on scanter vegetation, hence we find them to be more profitable in our more arid states and territories.

Some statistics concerning the population of the United States inclusive of Alaska and Hawaii, and exclusive of other acquisitions:

Total white population.....	66,990,802.
“ negro “	8,840,789.
“ Indian “ (taxed).....	137,242.
“ “ “ (not taxed)....	129,518.
“ Chinese “	119,050.
“ Japanese “	85,986.

Georgia has the greatest negro population,—1,034,813, but the whites outnumber the negroes. Mississippi and South Carolina have more negroes than whites. The former has 907,713 negroes, or 141,552 negroes to every 100,000 whites. The latter has 782,321 negroes, or 140,249 negroes to every 100,000 whites. Ten years ago the negroes outnumbered the whites in Louisiana, but do so no more according to census of 1900.

California has the most Chinese, 45,753; Hawaii is second with 25,767, and Oregon third with 10,397. Hawaii leads with 61,111 Japanese, and California follows with 10,151.

Alaska has the most taxed Indians, 29,536; California is second with 13,828, and New Mexico third with 10,207. Iowa has 382 Indians. No state in the Union is without Indians, though in Vermont the number dwindles down to five and in Maryland to three.

Indian Territory leads in untaxed Indians, 51,393; Arizona follows with 24,644, and South Dakota is third with 10,932.

2³ United States of Mexico.

1¹ Area,—767,000 square miles. Note that Mexico was formerly two and one-fourth times as large as now. and that our country has five-ninths of that former area.

2¹ Coast Line.

1² The eastern coast is sandy and has poor, shallow harbors. The river mouths are too much silted to

serve as harbors, the tidal action not being strong enough to carry away the sediment.

2⁵ The western coast has much better harbors, yet the largest seaport is on the east; account for it.

3¹ Physical features.

1⁶ Forms of relief. There is an Atlantic slope and a much shorter and steeper Pacific slope, both running down from the Mexican Highlands, of which the Sierra Madre is the highest and longest range.

1⁶ Lowlands along the coast to an elevation of 3,000 feet, with a hot, tropical and unhealthful climate.

2⁶ Temperate lands rising from 3,000 feet to 6,000 feet. This land has really a semi-tropical climate and is sometimes called the Paradise of Mexico.

3⁶ The cold lands lie over 6,000 feet above sea level. The lower part of this region conforms more to our temperate zone, and extends into regions of perpetual snow. The names were bestowed by the Spaniards, who came from a warm country; hence, they found even the lower part of this region cold, while an Englishman would not have considered it so. Mexico City itself is in this region, being 7,350 feet above sea level.

2⁵ Rivers.

1⁶ Short and but slightly navigable even under the most favorable circumstances. Account for it.

4¹ Climate.

1⁵ Some features indicated under forms of relief.

2⁵ Rainfall much heavier on Atlantic coast than on Pacific. Why?

3⁵ William Hawley Smith, in his "Walks Abroad," has this to say of the climate of the City of Mexico on the dry interior plateau. "We got to the City of Mexico about the middle of January and we left the first of March, and if we saw a cloud in the sky bigger than Barnum's circus tent during all that time, I have

forgotten it. Six weeks of sunshine without a break; and I was told by perfectly reliable parties that it had been just that way ever since the first of October, and that that was the regular thing every year. * * *

“In early April the rains begin, and they come decently and in order. In the first place, they always come in the afternoon. It never rains in the morning in Mexico City. The showers come about 5 o’clock in the afternoon, and they are generally over by seven. Sometimes they last until into the night, but not often. The mornings are always bright, and a fellow has a fair chance to get his work done, every day, before the rain begins.

“During June, July, and August, it rains every day from five to seven, p. m., and no postponements on account of the weather. By October first, the rains are over, and they can be absolutely relied upon not to show up again until the following April.”

5⁴ Products. Corn, wheat, beans, coffee and pepper are used much for food by the Mexicans. Almost all the products of the world may be raised here, as the climate from the coast to the mountains runs through all stages from the tropical to the frigid. Coffee and oranges are exported in large shipments to the United States. Cattle, dye-woods and tobacco are also exported.

6⁴ Inhabitants. 13,545,462, by census of 1900.

1⁵ Races. One authority estimates that over 90 per cent of the population have at least one-eighth Indian blood. Another authority estimates that 22 per cent are whites, 31 per cent Indians, and the rest mixed. Although generally the intelligence is among the whites, Indians may rise to the highest station. Juarez, who was a full-blood Indian, was president during the trouble with the French and Maximilian, and is ranked among Mexico’s greatest men. President Diaz, now serving his sixth term, has Indian blood in his veins.

2⁵ Religion. According to census of '95, 99.1 per cent were Roman Catholics.

3⁵ Language. Spanish and Indian. In '95, of the 454 periodicals published, one was in German, two in French, twelve in English and 439 in Spanish.

4⁵ Education. Theoretically it is free and compulsory, but the laws are not enforced. The same laws and conditions prevail in the Central American republics and in Santo Domingo. In '95, only 14.3 per cent of population of Mexico could read and write.

4⁵ Some features of Mexican life. The United States government published the results of investigations into the everyday life of our Mexican population in New Mexico. Since conditions are similar in Mexico in many respects, a part of the report will be quoted:

"In the case of the poorer classes of Mexicans, one family, often large, usually occupies but a single room of less than 20 by 30 feet. This room has but a single door, and one or possibly two openings in the wall to admit the light. These 'windows' have no glass, and are guarded by wooden slats into the wall a few inches apart. The floors of the houses are simply bare ground and the roofs are made of poles covered with brush, or some similar material, on top of which is spread a liberal coating of adobe mud. This constitutes the only protection against rain, which, however, seldom falls. The flat roofed houses, made of earth, present a very peculiar, box-like and unprepossessing appearance. They are, however, about the most comfortable residence for this country, the thick walls serving to equalize the temperature.

"The houses of the poor people are usually supplied with skins of sheep and other animals, which serve both as chairs and as beds for the children. When grinding corn and other articles in the metate and doing other

kinds of house work, the women usually sit on the floor on these skins.

“A very peculiar feature found in most of the houses is the swallows’ nests attached to the ceiling. The swallows continually flitting in and out of the door feeding their young, seem to be entirely at home among the dogs and children.

“The ‘tortillas,’ or cakes made of flour or ground corn, are one of the most generally and extensively used foods. When the tortillas are made from corn, the kernels are first boiled with lime, which softens them. The skin is then usually, though not always removed, and the grain is ground in a crude stone grinding apparatus, or ‘metate’, consisting of a concave slab of stone and a smaller convex piece, which is held in the hands and which serves as a pestle.

“The chili [pepper] is cooked alone, and also with various other articles of food. It is prepared by first removing the stems and seeds of the pods * * * after which it is sometimes ground in the metate, but is usually soaked in water and the inner or edible portion separated from the outer skin by squeezing in the hands. Owing to the extremely strong irritating effect on the hands, this operation cannot be performed by an amateur. The Mexican women, however, become so accustomed to it that it seems to have no effect on them.

“Among the poor families the meals are served on the floor in the middle of the room, the family sitting around the food and eating without knives, forks or plates.

“In passing from the poor to the well-to-do classes, and from the country to the towns, the manners and customs become more and more Americanized, until finally there is little difference in these respects between Americans and Mexicans. In the families of people in moderate circumstances living in the towns the stove and the table make their appearance, and the meals are

cooked and served more nearly in the American manner. A great variety of food is also used, including some meats and other animal foods. The frigoles and chili, however, are never discarded from the Mexican diet, no matter how high the station in life."

7¹ Government.

1⁵ Political divisions. Twenty-seven states, two territories and one federal district, each of which manages its own internal affairs.

2⁵ Executive department. President elected for four years by electoral college.

3⁵ Legislative department. Congress.

1⁶ Senate. Five senators from each state and the district, elected for four years by "all respectable male adults" of the minor divisions.

2⁶ House of Representatives. Members elected for two years on basis of one for every 40,000 people; elected by "all respectable male adults."

4⁵ Judicial. A supreme court and inferior courts.

5⁵ Like the other Spanish American republics, Mexico has had a turbulent existence. The Britannica states that since Mexico is independent, it has had about 300 revolutions, successful or abortive. Since Diaz is president there has been no revolution, and the prosperity of the country with the influx of foreign capital makes rebellions more and more improbable.

8¹ Chief cities.

1⁵ City of Mexico, capital and metropolis; 402,000 inhabitants in 1900. Connected by rail with the United States, and but six days' travel from New York. Charcoal is the main fuel and very few houses have chimneys. Buzzards are street scavengers and are protected by law.

2⁵ Vera Cruz. Chief seaport of Mexico, though it has an unsafe harbor. "The drainage of the city flows down open channels in the middle of the streets, which

are almost on a level with the sea. This, combined with the wretched water which the inhabitants are compelled to use, the marshy and utterly barren nature of the surrounding country, and the pestilential nature of the climate generally, easily accounts for the frightful ravages of the yellow fever in the summer."

3³ Guatemala.

1⁴ Area, 46,774 square miles. Which state of our Union is nearest to it in size?

2⁴ Population, 1,545,632. Sixty per cent of the people are Indians, and the pure-blooded whites are rare. Chief amusements are bull-fighting and cock-fighting. Ranks first in population among the Central American republics.

3⁴ Capital. New Guatemala, a city of about 60,000 inhabitants, well supplied with water works, street cars, electric lights, etc. Delights in the sobriquet, "Paris of America."

4³ Salvador.

1⁴ Area,—a little smaller than New Jersey. This is the smallest but the most densely populated of the Central American republics, having 110 persons to the square mile, while all Central America has 17 persons per square mile. It also ranks second in population.

2⁴ Population, 800,500. About 55 per cent of the people are Indians, 5 per cent white, and the rest mestizoes. The people are credited with being progressive and peaceful. 3⁴ Capital is San Salvador.

5³ Honduras.

1⁴ Area, 42,658 square miles.

2⁴ Population is relatively more Indian than that of any other Central American country.

3⁴ Products. Corn is the chief food. Bananas and cocoa nuts are shipped in large quantities to New Orleans as a distributing point.

4⁴ Capital is Tegucigalpa.

6³ Nicaragua. On account of the proposed Nicaragua canal, of more importance to us than any other Central American country.

1⁴ Area. About the size of the state of North Carolina, with but two-ninths the population of that state.

2⁴ Capital is Managua.

3⁴ Population, 420,000. D. O. Kellogg, in "Self Culture," for July, '98, says the following of the people: "In that country it is the custom to group the people into two general classes; the pure Indians and the Ladinós, the latter embracing every one that does not wear clothing like the aborigines. The Indians of pure blood comprise one-third of the inhabitants. There are but few of them in the departments along the Pacific coast, but elsewhere they preserve their own languages and customs, though many of them are familiar with Spanish. There are 150,000 half-castes and 20,000 negroes, who live mostly along the Atlantic coast, and of whom many speak English. The whites comprise about one-tenth of the people, and are generally of Spanish extraction. There is virtually no immigration, as the condition of affairs tends to repel it.

"A great obstacle to the progress of the country is its agricultural labor system, which is substantially peonage. Theoretically, complete freedom is the condition of every Nicaraguan, but it is true only so long as he is out of debt. The moment the laborer is so indiscrete as to contract a debt, his liberty entirely disappears. He cannot pay his obligation in money or produce, neither can anybody discharge it for him. He must work it out at the hopeless rate of twenty cents a day.

"As labor is scarce, and very little of it either skilful or intelligent, it is the policy of every planter to get his work-people in debt and to keep them in that condition, which is not a hard task. A small payment of wages in advance, a supply of food, or clothing, even a priest's

fee for a marriage, or a baptism, discharged by a planter, suffice to put the laborer at the disposal of a master. From that time on a peon is compelled to carry with him a book or written memorandum stating where and for whom he works, as well as the amount of his indebtedness. Once tangled in this coil, the planter takes care that the poor fellow shall not escape from servitude. As the laborer is unable to read and write, his condition is very much what the planter inscribes it. He is charged for rent and for supplies of the necessities of life at rates over which he has no control. He makes no bargains, but simply submits. Reduced to this condition, his creditor can transfer his claims to the man's toil without consulting him, and to whomsoever he pleases. This is slavery, only it is not hereditary."

7³ Costa Rica.

1¹ Area. A little larger than Vermont and New Hampshire together.

2¹ In regard to physical features, Minister Merry reports: "It must be remembered that mountainous regions in Central America are not barren like the Rocky mountains and the Sierra Nevada in the United States. The rain-fall is generally heavy throughout Costa Rica. The mountains are covered to the summits with vegetation, and, except at the summits, with a soil generally fertile."

3¹ Population, 275,000. (Estimate of Minister Merry.) "The population is more homogeneous and progressive than that of any other Central American state."—Johnson's Encyclopedia. Minister Merry writes: "One advantage that Costa Rica has over other Spanish American republics is the fact that her soil is largely owned by small land owners, who make their homes there and, as small producers, are interested in a peaceful life." Imports more products from the United States than any other Central American country.

5¹ Capital, San Jose.

8³ Haiti. Negro republic. On western part of island of same name.

1¹ Area, 10,204 square miles.

2¹ Population, 1,200,000. Ninety per cent are negroes, the rest largely mulattoes. Whites are not allowed to own real estate. French language is spoken. The people are turbulent and many rebellions occur. The country is not in a prosperous condition, and the people look upon foreigners with disfavor.

3¹ Capital, Port-au-Prince.

9³ Santo Domingo. Negro republic on eastern part of Island of Haiti.

1¹ Area, 18,045 square miles.

2¹ Population, 600,000. Inhabitants are chiefly negroes and mulattoes, though whites are comparatively numerous. Spanish is the prevailing language. People are more progressive than those of the Republic of Haiti.

3¹ Capital, San Domingo.

3² Cuba. Independent, under protection of U. S. A constitution has been adopted, and Tomas Estrada Palma was elected president by the electoral college, February 24, 1902, and will be inaugurated May 20th. The United States troops will all be withdrawn except those in the coast defences.

4² Dependent.

1³ British possessions.

1¹ Dominion of Canada.

1⁵ Gross area, 3,653,946 square miles.

2⁵ Population, 5,371,051, according to census of 1901. This is an increase of but 10 per cent during the last decade. Prince Edward Island had a decrease of about one-fourth of one per cent in its population. Manitoba an increase of about 65 per cent, and British Columbia an increase of 100 per cent. About one-third of the population is French Roman Catholics,

that in spite of being British subjects for over one and one-third century, still preserve their customs and the French language. The most are found in the Province of Quebec. The Indians number 93,316, census 1901. Notice that the state of New York has nearly two million inhabitants more than all Canada.

3⁵ Physical features.

1⁶ Forms of relief have been mentioned under the general head of North America.

2⁶ Rivers.

1⁶ St. Lawrence. This river is one of Canada's natural advantages, as it forms a highway for commerce from the interior to the ocean. Since the clearing away of some of the obstructions and the building of canals at the rapids, ocean steamers ascend this stream to Montreal. On account of their vast area, the volume of the Great Lakes varies little on account of floods, and since they furnish by far the greater part of the water of the St. Lawrence, its volume never varies much. Its waters are remarkably clear because the sediment settles in the Great Lakes; on account of the nature of the soil, the rivers flowing into it are also clear, especially the Ottawa. The head waters of the St. Lawrence are the St. Louis, a tributary of Lake Superior, and the length of the whole river is about 2,100 miles.

2⁶ Ottawa. A remarkably clear stream flowing through a heavily timbered country. It is said that the lumber interests carried on along this river surpass that of any other river in the world.

3⁶ The Mackenzie, named after its discoverer, is a good type of large, commercially unimportant rivers. It is capable of floating ocean-going vessels, but it flows from a sparsely settled region into one totally uninhabited by civilized people, and into an ocean frozen over

during at least half of the year, and is itself frozen over during a period almost as long. On account of its headwaters being in a warmer region than its mouth, the ice thaws and breaks first at its source, is carried on to the ice still unbroken, thus causing ice gorges, which in their turn cause the river to overflow and form wide marshes. Name other rivers of similar conditions.

4⁵ Government.

1⁶ The chief executive of Canada is a Governor General appointed by the British sovereign for a term of five years. He is supported by a privy council headed by a premier, who is a member of Parliament and leader of the political party having the majority. Salary is £10,000 per annum. The present Governor General is the Earl of Minto. The chief executive of each province is a Lieutenant Governor appointed by the Governor-General.

2⁶ The legislature of Canada is called Parliament, and consists of a Senate and a House of Commons. There are eighty senators, nominated for life, from the several provinces, by the Governor-General. Each senator must be at least thirty years old and have real or personal property to the value of at least \$4,000. The members of the House of Commons are elected by the people for a term of five years on basis of one for every 20,000 persons. Each province has its own legislature chosen by the people just as each state of our Union has its own legislature.

3⁶ Judicial.

4⁶ Political divisions.

1⁷ Provinces.

1⁸ Ontario. This is the most densely populated of the Canadian provinces and includes one of Canada's most favored regions,—the peninsula extending down between Lake Huron on the west and lakes Erie and Ontario on the east. These lakes tend to equalize

the temperature and make it possible to raise large crops of apples, pears, berries and grain. This peninsula is sometimes called "The Garden of Canada." The density of population here is about 65 to the square mile, while it is a little over 1 to a square mile for all Canada. Toronto is the capital and largest city. It is on a fine harbor on Lake Ontario. Its former name was York, and during the war of 1812 the American general Pike was killed here by the explosion of a powder magazine at the moment of victory.

2nd Quebec is a rather rugged country and lies on both sides of the St. Lawrence River. It is a little larger than Ontario, but not so populous. By far the greater number of people are French-speaking Roman Catholics. The capital is Quebec, the oldest city in Canada. The river narrows here and the strong fortifications on top of the bluffs control the navigation of the St. Lawrence. On account of its strong fortifications it is sometimes called "The Gibraltar of America." It retains many French characteristics and in that respect resembles our New Orleans. Montreal, on an island in the St. Lawrence, opposite the mouth of the Ottawa, is the largest city in Canada. It owes its importance to being the head of ocean navigation on the St. Lawrence, over 425 miles from the mouth of the river. That the St. Lawrence has great volume up to this point is shown by the appearance of a whale off Montreal in November, 1901. Lillian W. Betts, in the "Outlook" for December 29, 1900, has this to say of Montreal: "There are two Montreals—the old and the new; the one keeping its characteristic apart from the other, in houses, people, language. In the old city French is the mother tongue. Young and old use it, and it is a common experience to find boys and girls of fifteen to eighteen

unable to understand a word of English, * * * *
It is startling when the street cars pass into certain sections of the city to hear the conductor call out the names of the streets in French; it is not unusual to find a conductor who has great difficulty in answering questions in English."

3^d Nova Scotia. This province was formerly known as Acadia, but the English named it Nova Scotia (New Scotland), as the intention was to found a Scotch colony there. It consists of the peninsula of Nova Scotia and Cape Breton Island, and is a little larger than Vermont and New Hampshire combined. The climate is equable on account of the province's being almost entirely surrounded by water and is moderated by the Gulf Stream.

Annapolis, formerly Port Royal, was founded by the French in 1604, and is thus one of the oldest towns on the continent. It was renamed in honor of Queen Anne, for whom also was named our Annapolis in Maryland. Halifax is the capital and largest city. It owes its growth and prominence to its fine harbor which is never ice-locked. The United States Hydrographic Office says this about it: "Unless under most exceptional circumstances, Halifax harbor may be considered to have the advantage of never being closed by ice; for, although in very severe winters, when the low temperature has been accompanied by a continuous calm weather, the inner part of the harbor has been frozen over, yet this has occurred only at intervals of many years, and even then, * * * there is always sufficient open water in which vessels may anchor in safety. Even when the ice forms opposite the city, it never remains long, for it is broken up by the first southerly wind of sufficient strength to send a swell into the harbor." It is strongly fortified and is headquarters for the British squadron for North America.

4th New Brunswick was also a part of Acadia. Unlike Nova Scotia, it is subject to great extremes of temperature ranging from 95° to—35°. Lumbering and fishing are the chief industries. The harbor of St John, located where the river St. John flows into Bay of Fundy, is ice-free. The United States Hydrographic Office makes this statement: "The harbor of St. John is safe, commodious and always accessible, and in consequence of the great rise and fall of tide, added to the velocity of the stream, its navigation, even during the winter months, is never impeded by ice." Capital is Fredericton.

5th Prince Edward Island is the smallest of the Canadian provinces, being about the size of Delaware. It was discovered by Cartier and named Isle St. Jean, which name it bore for 265 years. In 1798 the legislature changed the name to Prince Edward Island, in honor of the late Queen Victoria's father, who was then commander of the forces in British North America. Capital is Charlottetown.

6th Manitoba is sometimes called the "Prairie Province" of Canada. It is about the size of Kansas. This province has developed rapidly since the construction of the Canadian Pacific railway, and is noted for its fine wheat farms. In 1901 this province raised over 85,000,000 bushels of grain, about 50,500,000 bushels of which were wheat. Winnipeg, the capital, has had a remarkable growth the last decade, increasing in population 86 per cent, a record surpassed by but few of our cities in the same decade.

7th British Columbia is the largest of the Canadian provinces and had the greatest per cent of increase in population during the last decade. This increase was due largely to development of the mining industry; other causes were the development of the fisheries, and of trans-Pacific shipping in connection with the

Canadian Pacific railroad. The climate is mild along the coast. Why? Why such contrast between the climate of this province and climate of New Foundland? Capital is Victoria.

2⁷ Northwest territories, — Alberta, East Assiniboia, West Assiniboia, Saskatchewan.

3⁷ Unorganized territories.

2¹ New Foundland. The name is a survival of Cabot's "The new found land." This British colony comprises the island of New Foundland and the eastern part of Labrador. It has refused to become a part of the Federation of Canada because it and the Dominion government can not agree on terms. The main points of contention are the share of New Foundland's debt the Canadian government is to assume, and compensation for use of Newfoundland's crown lands so that they may be open to all Canadians.

3¹ Bermudas. A group of about 360 coral islets some 624 miles eastward from Cape Hatteras. They are important to Great Britain on account of being midway between her West Indian possessions and those of British North America. Their location also makes them of great strategic value and England has made here one of her strongest forts, as from this point any part of our Atlantic coast may be threatened.

4¹ West Indian possessions. Principal islands.

1⁵ Bahamas. A group of some 3,000 islands and islets, twenty-five of which are inhabited. They contain Watling's island, the probable San Salvador of Columbus.

2⁵ Jamaica. Largest of British West Indian possessions and is a little larger than Porto Rico.

3⁵ Barbadoes. This island is the most easterly of the West Indies. Its entire area has been brought under cultivation, so there is no chance for negroes to "squat"

on unoccupied land; they are therefore compelled to labor and are more industrious and more thrifty than they generally are. They form about nine-tenths of the whole population. "The population is remarkably dense, being 1,571 per square mile." (Longman's School Geography.

4⁵ Trinidad. This is the most southerly of the West Indies, and is but ten miles from the coast of Venezuela. It is noted for its productiveness and its lake of asphalt, or pitch. This pitch forms an important article of commerce, and is used in paving of streets, making of tar felt, and in tar roofing.

5⁵ Nevis. A little island noted as birthplace of Alexander Hamilton.

5⁴ British Honduras, or Belize, in Central America.

2⁵ French possessions.

1⁴ St. Pierre and Miquelon off the south coast of New Foundland. France retains these islands as gathering places for her fishermen in the neighborhood of New Foundland.

2⁴ Martinique, Guadeloupe and some smaller islands in the West Indies. These are remnants of efforts of the French to establish themselves in the West Indies. Much sugar is produced. The people are represented in the National Assembly at Paris. Martinique is noted as the birthplace of Empress Josephine.

3³ Dutch possessions. Curacao and a few other small islands. Remnants of Dutch attempts to gain territory in North America. At one time governed by Peter Stuyvesant.

4³ Danish possessions. Greenland and Iceland.

POPULATION STATISTICS.

	Population	Increase per cent since 1890	Rank in population		Density per square mile		Area in Square Miles	
			1900	1890	1900	1890	Land	Water
United States.....	76,303,387	21.	.....	.....	25.6	21.2	*2,970,038	55,562
Alabama.....	1,828,697	20.9	18	17	35.	29.	51,540	710
Alaska.....	63,592	.....	51	.....	.1	.....	.....	***590,884
Arizona.....	122,931	67.	49	48	1.1	.8	112,920	100
Arkansas.....	1,311,564	16.3	25	24	25.	21.	53,045	805
California.....	1,485,653	22.7	21	22	9.5	7.8	155,980	2,380
Colorado.....	539,700	30.7	31	31	5.2	4.	103,645	280
Connecticut.....	908,420	21.7	29	29	187.5	154.	4,845	145
Delaware.....	184,735	9.6	46	42	94.	86.	1,960	90
District of Columbia.....	278,718	21.	42	39	4645.	3840.	60	10
Florida.....	528,542	35.	32	32	9.7	7.2	54,240	4,440
Georgia.....	2,216,331	20.6	11	12	37.6	31.2	58,980	495
Hawaii.....	154,001	71.1	48	.....	23.9	.....	.....	***6,449
Idaho.....	161,772	88.6	47	45	1.9	1.1	84,290	510
Illinois.....	4,821,550	25.	3	3	86.	68.	56,000	650
Indiana.....	2,516,462	14.8	8	8	70.	61.	35,910	440
Indian Territory.....	302,060	117.5	39	.....	12.6	5.8	31,000	400
Iowa.....	2,231,853	16.7	10	10	40.2	34.5	55,475	550
Kansas.....	1,470,495	2.9	22	19	18.	17.5	81,760	380
Kentucky.....	2,147,174	15.5	12	11	53.7	46.5	40,000	400
Louisiana.....	1,381,625	23.5	22	25	30.4	24.6	45,420	3,300
Maine.....	694,466	5.	30	27	23.2	22.	29,895	3,145
Maryland.....	1,188,044	14.2	26	27	120.5	105.7	9,860	2,350
Massachusetts.....	2,805,346	25.3	7	6	348.9	278.5	8,040	275
Michigan.....	2,420,982	15.6	9	9	42.2	36.5	57,430	1,485
Minnesota.....	751,394	33.8	19	20	22.	16.5	79,205	4,160
Mississippi.....	1,551,270	20.3	20	21	31.5	27.8	46,340	470
Missouri.....	3,106,665	16.	5	5	45.	39.	68,735	680
Montana.....	243,329	75.	44	44	1.7	1.	145,310	770
Nebraska.....	1,066,300	.7	27	26	13.9	13.8	76,840	670
Nevada.....	42,335	**11.	52	49	.4	.4	109,740	980
New Hampshire.....	411,588	9.3	36	33	45.7	41.8	9,005	300
New Jersey.....	1,883,669	30.4	16	18	250.3	193.8	7,525	290
New Mexico.....	195,310	19.4	45	43	1.6	1.3	122,460	120
New York.....	7,268,894	21.	1	1	152.6	126.	47,620	1,550
North Carolina.....	1,893,810	17.	15	16	39.	33.	48,580	3,670
North Dakota.....	319,146	70.9	41	41	4.5	2.7	70,195	600
Ohio.....	4,157,545	13.2	4	4	102.	90.	40,760	300
Oklahoma.....	398,331	518.	38	46	10.	2.	38,830	200
Oregon.....	413,536	30.4	35	38	4.4	3.4	94,560	1,470
Pennsylvania.....	6,302,115	19.9	2	2	140.	116.9	44,985	230
Rhode Island.....	428,556	24.	34	33	407.	318.4	1,053	197
South Carolina.....	1,340,316	16.4	24	23	44.4	38.2	30,170	400
South Dakota.....	401,570	16.8	37	37	5.2	4.5	76,850	800
Tennessee.....	2,020,616	14.3	14	13	48.4	42.3	41,750	100
Texas.....	3,048,710	36.4	6	7	11.6	8.5	262,290	3,490
Utah.....	476,749	32.2	43	40	3.4	2.6	82,190	2,780
Vermont.....	343,641	3.4	40	36	37.6	36.4	9,135	430
Virginia.....	1,854,184	12.	17	15	46.2	41.3	40,125	2,325
Washington.....	518,103	46.4	33	34	7.7	5.3	66,880	2,300
West Virginia.....	958,800	25.7	38	28	38.9	31.	24,645	135
Wisconsin.....	2,069,042	21.3	13	14	38.	31.1	54,450	1,590
Wyoming.....	792,531	49.2	50	47	.9	.6	97,575	315

* Exclusive of Hawaii and Alaska. ** Decrease in population. *** Gross area.

SUMMARY OF CENSUS BUREAU.

	Population.	Area per square mile.
Continental U. S.....	75,994,575	3,025,600
Philippine Islands.....	6,961,359	199,542
Porto Rico.....	953,243	3,606
Hawaii.....	154,001	6,449
Alaska.....	63,592	590,884
Guam.....	9,000	150
American Samoa.....	6100	72
Persons in military and naval service outside Continental U. S.	91,219	
Grand total for U. S.....	84,233,069	3,826,304

Since the foregoing summary was made the Danish Islands of the West Indies have been acquired. The following are the most recent statistics concerning them:

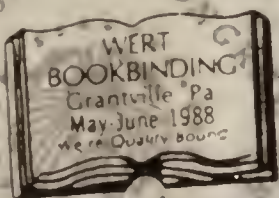
St Thomas, 23 square miles, 10,886 inhabitants.

St. John, 40 square miles, 915 inhabitants.

St. Croix (Santa Cruz), 81 square miles, 19,683 inhabitants.

“These islands, together with Porto Rico, are of great importance in a strategic way, whether the strategy be military or commercial. St. Thomas is the natural point of call for all European trade bound to the West Indies, Central America, or northern South America. The island of St. Thomas offers conditions suitable for developing a first-class military outpost. The island possesses all the natural advantages, enabling it to be converted into a second Gibraltar.” (Report of Senate Committee)





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